

Application Serial No. 10/580,479
Reply to office action of July 21, 2009

PATENT
Docket: CU-4833

REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

Claims 1-9 are pending before this amendment. By the present amendment, claim 1 is amended. No new matter has been added.

In the office action (page 2), claims 1-9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,286,671 (Yegin) in view of U.S. Patent No. 6,930,988 (Koodli), and further in view of U.S. Publication No. 2003/0225892 (Takusagawa). The "et al." suffix is omitted in a reference name.

The applicants respectfully **disagree**. The presently claimed invention is directed to an access router based mobile IPv6 fast handover method. In the presently claimed invention, an access router generates a Care of Address (CoA) for use by a mobile node (MN). The AR performs Duplicate Address Detection (DAD) at the AR so that the MN can immediately use the CoA without having to perform DAD as in the conventional art. As a result, the presently claimed invention expedites the handover process. The presently claimed invention utilizes a 'C' flag in the messages between the MN and AR in order to discriminate existing options from the prefix information options (specification page 12, lines 30-34).

To more clearly recite these limitations of the presently claimed invention, claim 1 has been amended to recite, inter alia:

– e) transmitting a modified Router Advertisement (RA) message after performing DAD at the new access router (AR), which corresponds to the modified RS message transmitted from the mobile node (MN), to the mobile node (MN) from the new access router (AR),

wherein the mobile node (MN) does not perform Duplicate Address Detection (DAD) after receiving the modified Router Advertisement (RA)–.

The support for these amendments can be found at least in the specification page 12, line 11-29.

The examiner cites Yengin and Takusagawa as teaching claim 1, but acknowledges that neither Yengin nor Takusagama teach performing DAD at the new AR as recited in claim 1. However, the examiner again cites Koodli as teaching DAD

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being performed at the new AR. The applicants have repeatedly provided support as to how Koodli does **not** teach performing DAD at the new AR, yet the examiner continues to rely on Koodli despite the applicants' arguments. Further, the examiner has yet to respond to the applicants' arguments, but rather repeats the same rationale without addressing the arguments provided by the applicants. Therefore, the applicants respectfully request that the examiner set forth his reasoning with respect to Koodli. According to MPEP § 707.07(f) ¶ 7.38, "The examiner **must**, however, **address any arguments presented by the applicant** which are still relevant to any references being applied" (emphasis added).

On page 3 of the office action, the examiner cites Koodli col. 7, lines 11-19 as teaching --performing Duplicate Address Detection (DAD) at the new access router (AR)--. The examiner states that Koodli teaches "an access router performing actions substantially similar to duplicate address detection (DAD)." The applicants have repeatedly asserted that Koodli does **not** perform DAD, but merely checks a cache to see if an unconfirmed address exists (Koodli col.8, lines 47-52). If the access router finds a match, a transmit timer of the mobile node is left to expire. At this point in Koodli, the mobile node **performs duplicate address detection** (Koodli col. 8, lines 14-17). That is, Koodli explicitly states that the mobile node performs DAD. In contradistinction, the presently claimed invention performs DAD at the new AR so that the MN does not need to perform DAD.

The examiner's argument that Koodli teaches an access router performing actions "substantially similar" to DAD does not teach DAD. Rather, Koodli explicitly states that if the "actions substantially similar to a DAD" fail, the mobile node performs duplicate address detection (Koodli col. 8, lines 14-17). In contradistinction, this is exactly that which the present invention avoids. By having the new AR perform DAD and the CoA generation, the new CoA for the MN can be guaranteed to be unique and is ready for use by the MN immediately. Contrasted with Koodli, a mobile node must set a transmit timer (S306) and wait for either expiration of the timer or a confirmation (S308) from the access router prior to using the unconfirmed address (Koodli FIGS. 3-4). This inherently adds to the length of time before the mobile node, according to Koodli, can use the unconfirmed address. The presently claimed invention doesn't

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suffer from these problems as DAD is performed at the AR to guarantee uniqueness of the generated CoA. That is, the MN can use the generated CoA without having to perform DAD.

Koodli discloses a method that attempts to use an unconfirmed address with an access router. The access router checks if the unconfirmed address is in a cache and if it is, requires the mobile node to perform DAD. A person having ordinary skill in the art would not look to Koodli to teach the presently claimed invention. That is, a person having ordinary skill in the art would not look to Koodli to teach an access router performing DAD in order to eliminate the need for a MN to perform DAD since Koodli **explicitly** teaches the mobile node performing DAD.

Accordingly, the applicants respectfully submit that neither Yengin, Koodli, nor Takusagawa teach or suggest, whether considered individually or in combination, all the limitations of amended claim 1 since none of the cited prior art references teach the AR performing DAD such that the MN does **not** perform DAD. Therefore, the applicants respectfully request withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter.

As to claims 6-7 and 9, the applicants respectfully submit that none of the cited prior art references teach the ~~flag~~ as recited in the claims. On page 6 of the office action, the examiner relies on Yengin as teaching the recited ~~flag~~. In the presently claimed invention, a 'C' flag is added in order to discriminate existing options from the prefix information options (specification page 12, lines 30-34). However, the relied upon portions of Yengin teach no such comparable ~~flag~~. The relied upon portions of Yengin are completely silent to any type of flag whatsoever. The applicants are perplexed as to how the examiner has come to such a conclusion.

The 'C' flag indicates the newly generated CoA has been generated that the AR. The examiner acknowledges that Yengin does not teach CoA generation at a new AR and therefore the examiner's argument that Yengin can somehow teach a flag indicating generation of a CoA at an AR is without support. Even looking to Takusagawa, there is absolutely no mention as to a flag for signifying generation of a CoA.

Accordingly, the applicants respectfully submit that none of the cited prior art

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references, whether considered individually or in combination, teach or suggest all the limitations of claims 6-7 and 9. Therefore, the applicants respectfully request withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter.

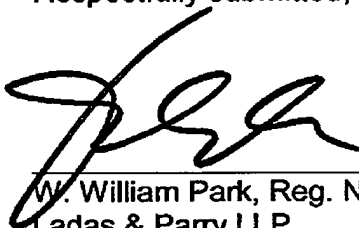
As to claims 2-9, the applicants respectfully submit that these claims are also allowable at least since they depend from independent claim 1, which is now considered to be in condition for allowance for at least the reasons set forth above. Therefore, the applicants respectfully request withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter.

For the reasons set forth above, the applicants respectfully submit that claims 1-9, pending in this application, are in condition for allowance over the cited references. Accordingly, the applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter.

This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

Dated: Oct. 21, 2009



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